IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s)	:	Steven M. Hoffberg
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For	:	ADAPTIVE PATTERN RECOGNITION BASED CONTROLLER APPARATUS AND METHOD AND HUMAN-FACTORED INTERFACE THEREFORE
Art Unit	:	2121
Examiner	:	Hartman Jr., Ronald D.

August 22, 2006

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

AMENDMENT UNDER 37 C.F.R. § 1.312

Sir:

In response to the Notice of Allowance Dated May 23, 2006, the time payment of the Issue Fee expiring August 23, 2006, applicants respectfully request entry of this Amendment without withdrawal of the application from Issue, as follows.

Please charge any insufficiency of fee, or credit any excess, to Deposit Account No. 50-0427.

Claims 1-34 (Cancelled)

35. (Currently Amended) An apparatus, comprising:

means for storing a user-specific profile between usage sessions;

means for automatically determining ~~at least~~ one or more of an image and video information content of media content records;

means for determining a relation of the automatically determined information content with a stored user-specific profile;

means for presenting identifications of the media content records, in dependence on the determined relation, for selection therefrom by the user;

means for receiving feedback from the user on said presented identifications ~~presentation~~; and

means for updating the user-specific profile based on the feedback.

36. (Previously Presented) The apparatus according to claim 35,

wherein said apparatus is an information access system for presenting users with information items of interest;

further comprising content records storing means comprising a computer system containing a database of information items available to be presented to users of the system;

further comprising accessing means comprising at least one access device for enabling users to communicate with the computer system and access a media content record;

wherein said user-specific profile storing means stores a user profile for a plurality of users;

wherein said relating means comprises means for determining a likely agreement of a plurality of the available media content records with a respective user-specific profile;

wherein said presenting means presents a menu listing identifications of the media content records based on the likely agreement and enabling a user to retrieve a media content record through the access system;

wherein said feedback receiving means comprises means for enabling the user to indicate that user's preference for a retrieved media content record; and

wherein said updating means comprises means for updating the user-specific profile in response to indications of preference provided by the user.

37. (Previously Presented) The apparatus of claim 36, wherein said likely agreement determining means indexes the available items of information for a user on the basis of at least one attribute pertaining to a plurality of media content records.

38. (Previously Presented) The apparatus of claim 35, wherein said media content records comprise video programs.

39. (Currently Amended) The apparatus of claim 36, wherein said likely agreement determining means ~~produces~~ uses a formula which predicts the interest of a user in a media content record on the basis of ~~at least~~ one or more of a user profile and an attribute related to that media content record.

40. (Currently Amended) A method, comprising:

storing a user-specific profile between usage sessions;

receiving a user identification of at least one user;

relating automatically characterized information content of ~~at least~~ one or more of an image and video information content of media content records with a stored user profile for the identified user; and

presenting to the user identifiers of the related media content, in dependence on the relation between a characterization of a respective media content and the user specific profile, wherein the identifiers are associated to the respective media content for automated access thereto after selection by the user.

41. (Previously Presented) The method according to claim 40, for providing information to users, further comprising the step of storing a plurality of media content items and characterizations thereof, wherein:

said relating step comprises determining a user's likely interest in entertainment media content, in accordance with that user's profile, and indexing the media content in accordance with their determined interest; and

said presenting step comprises displaying identifications of the media content to be selected by the user through a user interface, with an indication of their relative index.

42. (Currently Amended) The method of claim 41, wherein said items of information are displayed in order ~~of~~ corresponding to their indexing.

43. (Currently Amended) The method of claim 40, wherein the automatically characterized information content of media is characterized based on an automated pattern analysis of ~~at least~~ one or more of an image, and an audio track, and a synchronized audio and video pattern.

44. (Currently Amended) The apparatus of claim 35, wherein said means for automatically determining an information content of media content records comprises a processor performing one or more algorithms for ~~at least~~ one or more of automated image pattern analysis, automated audio pattern analysis and automated synchronized audio and video pattern analysis.

45. (Previously Presented) The method of claim 41, further including the steps of selecting media content from those which are displayed, providing an indication of the user's actual interest in the selected media content, and storing the user's indicated interest.

46. (Previously Presented) The method of claim 41, wherein the likely interest is determined for all of the available media content in response to receipt of a user's request for access.

47. (Currently Amended) A method, comprising the steps of:

automatically generating a user profile representing an interest summary for a respective user based at least on a history of access to objects comprising entertainment media;

storing the user profile in memory between access attempts of the objects;

generating a menu of available objects corresponding to the user profile and indicating a likely preference for a respective available object by the respective user, arranged in dependence on a correlation between the user profile and automatically generated characterizations of ~~at least~~ one or more of an image and video information content of available objects; and

tracking menu use as a part of the history of access to objects.

48. (Previously Presented) The method of claim 47, for providing a user with access to selected objects that are accessible via an electronic storage media, where said user is connected via user terminals and data communication connections to a server system which accesses said electronic storage media, wherein:

said automatically generating step generates at least one user profile for a user at a user terminal, each of said user profile being indicative of ones of said objects, and associated automatically generated characterizations of objects accessed by said user; and

said storing step stores said at least one user preference profile in a memory.

49. (Previously Presented) The method of claim 48, further comprising the steps of:

enabling said user to access said plurality of objects stored on said electronic storage media;

said step of enabling access comprising:

correlating said user profile, generated for said user, with profiles generated for said plurality of objects and sets of automatically generated characterizations of objects to identify ones of said plurality of objects stored on said electronic storage media that are likely to be of interest to said user;

transmitting a menu, that identifies at least one of said identified ones of said plurality of objects, to said user; and

providing access to a selected one of said plurality of objects stored on said electronic storage media in response to said user selecting an item from said menu;

said step of providing access further comprising:

transmitting data, in response to said user activating said user terminal to identify said selected item on said menu, indicative of said user's selection of said selected item from said user terminal to said target server via a one of said data communication connections;

retrieving, in response to receipt of said data from said user terminal, an object identified by said selected item from said electronic storage media; and

transmitting said retrieved one of said object to said user terminal for display thereon to said user,

said step of automatically generating comprising:

automatically updating said user profile for said user as a function of said objects retrieved by said user.

50. (Previously Presented) The method of claim 48, wherein said automatically generating step comprises:

creating a customer profile, said customer profile indicating a respective customer's preferences for data;

monitoring a history of data objects accessed by the customer; and

automatically updating the customer profile in accordance with the content profiles accessed by the customer to automatically update the customer profile to represent the customer's preferences.

51. (Previously Presented) The method of claim 47, wherein said method is for scheduling customer access to data from a plurality of data sources,

further comprising the steps of:

creating content profiles for a plurality of data sources, said content profiles indicating predetermined characteristics in data from a respective data source;

said generating step comprises creating at least one customer profile for a recipient of said data, said customer profile indicating a customer's preferences for data having predetermined characteristics;

monitoring which data sources are actually accessed by a recipient; and

updating, without explicit input from a customer, a respective customer profile in accordance with the content profiles of the data sources actually accessed by that customer to automatically update the customer's actual preferences for said predetermined characteristics.

52. (Currently Amended) The method of claim 47, wherein said method is for scheduling customer access to entertainment media,

further comprising the steps of:

creating content profiles for a plurality of entertainment media available, said content profiles indicating predetermined characteristics in respective entertainment media;

creating at least one customer profile for a respective customer, said customer profile indicating a customer's preferences for predetermined characteristics of the entertainment media;

monitoring which entertainment media are actually perceived by the respective customer; and

updating, without explicit input from the customer, the respective customer profile in accordance with the content profiles of the entertainment media actually ~~perceived~~ perceived by that customer to automatically update the customer's actual preferences for said predetermined characteristics.

53. (Previously Presented) The method of claim 52, comprising the further steps of receiving customer identity information and determining from said customer identity information which customer profile to update in said updating step.

54. (Previously Presented) The method of claim 47, wherein said method is for scheduling customer access to data from a plurality of data sources, further comprising the steps of:

creating a customer profile indicating a respective customer's preferences for predetermined characteristics of the data sources;

monitoring which data sources are actually accessed by the respective customer; and

updating the respective customer profile to reflect a frequency of selection of the data sources by customers with customer profiles substantially similar to the respective customer's profile.

55. (Currently Amended) An apparatus, comprising:

means for automatically generating a user profile representing user preferences for a respective user based at least on a history of access to objects from menu selections;

a memory for storing the user profile between usages; and

an output port for presenting identifiers of objects arranged according to a correlation between a user profile and automatically determined information content characteristics selected from the group consisting of ~~at least~~ one or more of image and video information content characteristics of a set of objects.

56. (Previously Presented) The apparatus according to claim 55, for providing a user with access to selected ones of a plurality of target objects and sets of target object characteristics that are accessible via an electronic storage media, where said user is connected via user terminals and data communication connections to a target server system which accesses said electronic storage media, comprising:

means for automatically generating at least one user target profile interest summary for a user at a user terminal, each of said user target profile interest summaries being indicative of ones of said target objects and sets of target object characteristics accessed by said user; and

means for storing said at least one user target profile interest summary in a memory.

57. (Previously Presented) The apparatus of claim 56, further comprising:

means for enabling said user to access said plurality of target objects and sets of target object characteristics stored on said electronic storage media;

said means for enabling access comprising:

means for correlating said user target profile interest summaries, generated for said user, with target profiles generated for said plurality of target objects and sets of target object characteristics to identify ones of said plurality of target objects and sets of target object characteristics stored on said electronic storage media that are likely to be of interest to said user;

means for transmitting a menu, that identifies ~~at least~~ one or more of said identified ones of said plurality of target objects and sets of target object characteristics, to said user; and

means for providing access to a selected one of said plurality of target objects and sets of target object characteristics stored on said electronic storage media in response to said user selecting an item from said menu.

said means for providing access comprising:

means for transmitting data, in response to said user activating said user terminal to identify said selected item on said menu, indicative of said user's selection of said selected item from said user terminal to said target server via a one of said data communication connections;

means for retrieving, in response to receipt of said data from said user terminal, a target object identified by said selected item from said electronic storage media; and

means for transmitting said retrieved target object to said user terminal for display thereon to said user;

said means for automatically generating comprising:

means for automatically updating said user target profile interest summary for said user as a function of said target objects and sets of target object characteristics retrieved by said user.

58. (Currently Amended) A system, comprising:

~~A~~ a memory, adapted for storing a customer profile, said customer profile indicating a respective customer's preferences for data derived from a history of selection of media data objects by the customer; and

means for automatically updating the stored customer profile in accordance with content profiles of media data objects selected by the customer from menu selections, the content profiles of data objects being generated automatically in dependence on ~~at least~~ one or more of an image and video information data content of the media data object, to automatically update the customer profile to represent the customer's preferences.

59. (Currently Amended) The system according to claim 58, for scheduling customer access to data from a plurality of data sources, wherein ~~further comprising~~:

~~Automatically~~ said automatically generated content profiles comprise content profiles for a plurality of data sources, said content profiles indicating predetermined characteristics in data from a respective data source;

~~wherein:~~

at least one customer profile for an eligible recipient of said data is provided, said customer profile indicating the customer's preferences for data having predetermined characteristics; and

said means for automatically updating monitoring which data sources are actually accessed by a recipient, and, without explicit input from a customer, updating a respective customer profile in accordance with the content profiles of the data sources actually accessed by that customer to automatically update the customer's actual preferences for said predetermined characteristics.

60. (Previously Presented) The system according to claim 58, for scheduling customer access to video programs, said media objects being video programs, further comprising:

content profiles for a plurality of video programs available for viewing, said content profiles indicating predetermined characteristics in the video program;

wherein:

a customer profile indicates a respective customer's preferences for predetermined characteristics of the video programs;

said means for automatically updating monitoring which video programs are actually viewed by the customer, and

, without explicit input from the customer, updates the customer profile in accordance with the content profiles of the video programs actually viewed by that customer to automatically update the customer's actual preferences for said predetermined characteristics.

61. (Previously Presented) The system as in claim 60, further comprising:

means for transmitting said content profiles along with electronic program guide data for upcoming television viewing periods to customers.

62. (Previously Presented) The system as in claim 60, further comprising means for inputting customer identity information and for determining from said customer identity information which customer profile to update with said updating means.

63. (Previously Presented) The system according to claim 60, for scheduling customer access to data provided by a plurality of data sources, further comprising:

means for creating a customer profile for a customer of said plurality of data sources, said customer profile indicating said customer's preferences for predetermined characteristics of the data sources;

said means for automatically updating comprising means for monitoring which data sources are actually accessed by a respective customer; and

said updating means updates a respective customer profile to reflect a frequency of selection of the data sources by customers with customer profiles substantially similar to said respective customer profile.

64. (Previously Presented) The system according to claim 58, being a multimedia terminal for receiving data from a plurality of data sources, further comprising:

means for storing at least one customer profile indicating a customer's preferences for data having predetermined characteristics;

means for storing content profiles for a plurality of data sources, said content profiles indicating said predetermined characteristics in data from a respective data source;

means for inputting recipient identity information;

means for selecting different customer profiles which correspond to said recipient identity information;

processing means for relating said selected customer profiles with the content profiles for the data available from a respective data source to the customer at a particular time and for determining a subset of data having content profiles which most closely match said selected customer profile; and

a display guide for presenting said subset of data to said customer for selection.

65. (Previously Presented) The system as in claim 64, further comprising means for storing an electronic program guide, wherein said display guide highlights programs within said electronic program guide which correspond to said subset of data.

Claims 66-112 (Cancelled).

113. (Previously Presented) The system according to claim 58, for presenting a program, said data objects being programs, further comprising:

a source of program material;

a memory for storing received program material;

a processor for selectively processing the program material based on a correlation between the user profile and a characterization of the content of the program material.

114. (Previously Presented) The system according to claim 113, wherein said selective processing is selected from one or more of the group consisting of storing the program material, outputting the program material separately from unselected program material, updating a user preference profile, and deleting the program material from temporary storage.

115. (Currently Amended) An apparatus, comprising:

means for automatically accessing a set of stored content objects, said set of stored content objects being associated with automatically generated content object profiles, said automatically generated content object profiles comprising a content profile characterizing ~~at least~~ one or more of an image and video information content;

means for storing a user-specific profile between usage sessions, indicating a respective user's preferences for content and representing a history of content objects selected by a user;

means for implicitly deriving a user-specific profile, without requiring explicit user feedback, based on the automatically generated content object profiles of respective objects and a history of user interaction with respective objects, to predict a user's preferences; and

means for automatically updating the stored user-specific profile.

116. (Currently Amended) A method, comprising:

storing descriptors of a plurality of content objects;

storing a user-specific profile associated with a user preference derived automatically from a history of selection of descriptors contained in a menu and associated automatically generated content object characterizing information over a plurality of usage sessions, said

automatically generated content object characterizing information comprising characterizing information of ~~at least~~ one or more of an image and video information content;

associating at least one content object corresponding to the user preference, not previously presented to the user, with the stored user profile;

presenting the descriptor of the associated content object corresponding to the user preference to the user as part of a menu of possible selections; and

receiving a selection of the descriptor from a user to identify the corresponding content object, and updating the user specific profile in ~~dependent~~ dependence thereon.

117. (Currently Amended) A method, comprising the steps of:

automatically generating a user interest profile based on at least automatically determined characteristics of objects represented in a history of selection of objects from a menu, said automatically determined characteristics comprising characteristics of ~~at least~~ one or more of an image and video information content;

storing the user interest profile in memory between usage sessions;

interactively presenting identifiers of a set of objects to the user, in dependence on a correspondence between members of the set of objects and the interest profile, and receiving from the user a selection of an object from the set, presented in a menu; and

accounting for selection or a result of the selection of the object.

118. (Currently Amended) ~~An~~ The apparatus according to claim 58, further comprising:

~~means for automatically generating a user-specific profile representing a user's preferences based at least on a history of access to objects;~~

~~a memory for storing the user profile between usage sessions;~~

~~a user interface comprising a representation of a set of alternate available selectable objects, interactively presenting identifications of a set of objects to the user corresponding to the user's preferences, and receiving from the user a selection of an object; and~~

a financial accounting system for charging a user account for selection or a result of the selection of the object by the user.

119. (Currently Amended) A system, comprising:

a user interface for receiving a data object selection from a menu by a user, from a plurality of accessible data objects having associated content profiles;

means for monitoring a history of data objects and associated content profiles selected by the user to derive the respective user's preferences for data;

a stored user profile, said user profile comprising a respective user's preferences for data over a succession of data object selections;

means for automatically updating the user profile in accordance with image or video content objects selected by the user to represent the user's preferences for data, and accounting for the user's satisfied demand for data.

120. (Cancelled).

121. (Cancelled).

122. (Previously Presented) An apparatus according to claim 55, further comprising:

a source of program material, said objects comprising program material; and

a memory for storing received program material,

wherein said means for automatically generating a user profile comprises a processor for selectively processing the program material based on a correlation between a user preference and an automatically generated characterization of the content of the program material.

123. (Previously Presented) The system according to claim 58, wherein said media data objects comprise a time-continuous media program, further comprising program selection means, for selecting one or more programs using a customer's preferences and program control information for controlling receipt of a media program.

124. (Previously Presented) The system of claim 123, further comprising a hardware device associated with a video display comprising said means for monitoring and a

memory for storing said customer profile, wherein the program selection means comprises a graphic user interface presenting said menu on said video display.

125. (Previously Presented) The system according to claim 58, being used by subscribers of a program delivery system for suggesting programs to subscribers using program control information containing program description data, and subscriber specific data indicative of a subscriber's programming preferences, comprising:

a memory storing the automatically generated content profiles from a plurality of available programs.

126. (Previously Presented) The system of claim 58, being used by subscribers of a television program delivery system for suggesting programs to subscribers using program control information containing scheduled program description data, further comprising:

means for transforming the customer profile information into preferred program indicators, wherein a preferred program indicator comprises a program category with each program category having a weighted value;

a means for matching the preferred program indicators with scheduled program description data, wherein each scheduled program is assigned a weighted value based on at least one associated program category;

a means for prioritizing the scheduled programs from highest weighted value programs to lowest weighted value programs; and

a means for indicating one or more programs meeting a weight related threshold, wherein all other programs are excluded from program suggestion.

127. (Previously Presented) The method of claim 47, used by users of a television program delivery system for suggesting programs to user using program control information containing scheduled program description data, further comprising the steps of:

prioritizing at least a portion of a set of scheduled programs;

indicating one or more programs having a relatively higher weight, wherein other programs having a relatively lower weight are not simultaneously indicated; and

suggesting the selected programs to the user.

128. (Currently Amended) An apparatus, comprising a processor ~~receiving~~ configured to receive as an input a stored user profile derived at least in part from ~~at least~~ a history of user interaction with the apparatus, the user profile representing at least user media content preferences, said processor generating an output representing a user interface comprising a menu having a plurality of options available for user selection, and receiving as an input a user selection of an option, updating the user profile in dependence on the user selection and automatically generated characteristics of a respective option or data associated therewith, at least one respective option comprising one or more of an image, video or multimedia content object, executing a function in accordance with the selection; and ~~producing an output representing~~ updating the user profile for storage between usage sessions.

129. (Previously Presented) The apparatus according to claim 128, further comprising a media database, wherein the user selection defines a media program to be stored in or retrieved from the media database.

130. (Previously Presented) The apparatus according to claim 128, wherein the user interface comprises a graphic user interface, further comprising a pointing device for manipulating a cursor on the graphic user interface.

131. (Previously Presented) The apparatus according to claim 130, wherein the pointing device communicates wirelessly with the processor.

132. (Previously Presented) The apparatus according to claim 131, wherein the pointing device has a local display providing a user output.

133. (Previously Presented) The apparatus according to claim 128, wherein the memory stores a plurality of user profiles for separate users, wherein the processor receives a user identification in order to select a respective one of the user profiles.

134. (Previously Presented) The system of according to claim 128, further comprising a memory for storing a catalog of available options.

135. (Previously Presented) The system according to claim 128, wherein at least one option is encrypted, and requires decryption for completion of execution of the function.

136. (Previously Presented) The system according to claim 128, wherein the function comprises implementation of a serial copy management protocol.

137. (Currently Amended) The system according to claim 128, further comprising ~~an~~ a financial accounting subsystem, wherein a selection of an option is accompanied by ~~an~~ financial accounting entry in said financial accounting subsystem.

138. (Previously Presented) The system according to claim 128, wherein a selection of an option is communicated remotely to an accounting system, which accounts for the selection by the user.

139. (Previously Presented) The system according to claim 128, further comprising an accounting database, said function executed by said processor subsystem comprising sequentially a first aspect and a second aspect of use of proprietary content, said accounting database differentially accounting for said aspects.

140. (Previously Presented) The system according to claim 128, wherein said menu comprises between four and eight options.

141. (Currently Amended) The system according to claim 128, wherein said processor ~~subsystem~~ is adaptive to changing user preferences.

142. (Previously Presented) The system according to claim 128, wherein said user interest summary comprises a type of program preference.

143. (Currently Amended) The system according to claim 128, wherein said processor ~~subsystem~~ comprises a correlator, for correlating a user profile with an option characteristic profile.

144. (Currently Amended) The system according to claim 128, wherein said processor ~~subsystem~~ comprises a buffer for storing received media content prior to a decision as to whether the received media content should be persistently stored.

145. (Currently Amended) The system according to claim 128, wherein said processor ~~subsystem~~ performs a discrete cosine transform function-based processing on image data.

146. (Currently Amended) The system according to claim 128, wherein said processor ~~subsystem~~ performs a wavelet function-based processing on image data.

147. (Previously Presented) The system according to claim 128, wherein characteristics of at least one option are represented as a set of media model representations.

148. (Currently Amended) The system according to claim 128, wherein a characteristic of an option comprises at least one characteristic ~~parameters~~ of a serialized presentation.

149. (Currently Amended) The system according to claim 128, wherein characteristics of respective options are communicated from a remote database.

150. (Currently Amended) The system according to claim 128, wherein said processor ~~subsystem~~ can perform a plurality of functions on separate options simultaneously, wherein each said function comprises processing a time-continuous stream of information.

151. (Currently Amended) The system according to claim 128, wherein said processor ~~subsystem~~ correlates a plurality of characteristics associated with an option with the user profile to predict a user action.

152. (Currently Amended) The system according to claim 128, wherein said processor ~~subsystem~~ operates in a time-dependent manner.

153. (Currently Amended) The system according to claim 152, wherein said processor ~~subsystem~~ synchronizes an internal clock with a remote system.

154. (Currently Amended) The system according to claim 128, wherein said processor ~~subsystem~~ performs speech recognition.

155. (Previously Presented) The system according to claim 128, wherein said functions comprise processing of broadcast media, wherein the characteristics of the broadcast media are received from a remote database.

156. (Currently Amended) The system according to claim 128, wherein said processor ~~subsystem~~ monitors a real time information stream.

157. (Previously Presented) The system according to claim 35, wherein a plurality of content records are stored in a common physical storage medium.

158. (Previously Presented) The system according to claim 35, wherein said means for storing comprises a means for recording and reproduction under control of a user.

159. (Currently Amended) The system according to claim 35, wherein said means for ~~detrermining~~ determining a relation selects content records from an inferred user preference.

160. (Previously Presented) The system according to claim 35, wherein said identifications comprises a content identifier, a broadcast time, a channel code, and descriptive information.

161. (Currently Amended) A system for creating a viewer preference profile, comprising:

a memory for storing a viewer profile, said viewer profile indicating a respective ~~viewers~~ viewer's preferences for predetermined characteristics of video programs;

a memory for storing a set of content profiles for available video programs, said content profiles comprising automatically generated characterizations of ~~and indicating~~ predetermined characteristics in the video programs;

means for monitoring a history of interaction of a viewer with video programs; and

means for automatically updating the viewer's preferences in the viewer profile in accordance with content profiles of the video programs interacted with by the viewer~~, to represent the viewer's expressed preferences~~.

162. (Previously Presented) The system according to claim 161, further comprising means for communicating said content profiles along with electronic program guide data for upcoming program viewing periods to viewers.

163. (Previously Presented) The system according to claim 161, further comprising means for inputting viewer identity information and for determining from said viewer identity information which viewer profile to update with said automatic updating means.

164. (Currently Amended) A system for updating viewer preference profiles, comprising:

a receiver configured to receive ~~for receiving~~ video object identifying and characterizing information~~,~~ comprising automatically generated analysis relating to a respective video object, separate from associated video objects;

a memory storing at least one viewer profile, a viewer profile indicating a viewer's preferences for video objects;

means for monitoring a history of video objects selected by the viewer; and

means for automatically updating the viewer profile in accordance with the identifying and characterizing information of video objects selected by the viewer from menu selections, to

automatically update the viewer's preferences in the viewer profile ~~to represent the viewer's preferences~~.

165. (Previously Presented) The system according to claim 164, further comprising a processor for determining quantitative relationships of video objects and the viewer profile.

166. (Previously Presented) The system according to claim 165, wherein the quantitative relationship comprises a correlation.

167. (Previously Presented) The system according to claim 164, wherein said characterizing information comprises at least one criterion of classification.

168. (Previously Presented) The system according to claim 165, further comprising an output presenting identifications of a set of video objects likely to be preferred by the viewer.

169. (Previously Presented) The system according to claim 165, further comprising a video object storage system for storing at least one video object determined to be likely to be preferred by the viewer, based on the determined quantitative relationships.

170. (Currently Amended) The apparatus according to claim 58 ~~118~~, wherein said means for automatically updating comprises an input for receiving a set of automatically generated characterizations of multimedia content, and a processor for inferring a user profile based on respective characterizations of objects historically accessed by the user.

171. (Previously Presented) The system according to claim 119, wherein said associated content profiles are generated, at least in part, by automated means.

172. (Previously Presented) The system according to claim 119, wherein said customer's satisfied demand for data is accounted by introducing a bias against characteristics of data objects recently selected by the customer.

173. (New) The apparatus according to claim 55, wherein said means for automatically generating comprises a processor executing a program.

174. (New) The apparatus according to claim 58, wherein said means for automatically updating comprises a processor executing a program.

REMARKS

Claims 35-65, and 113119 and 122-174 are in the application.

The independent claims are 35, 40, 47, 55, 58, 115-119, 128, 161 and 164.

Claims 35, 39, 40, 42-44, 47, 52, 55, 57-59, 115-119, 128, 137, 141, 143-146, 148-154, 156, 159, 161, 164, and 170 are amended.

Claims 35, 39, 40, 43, 44, 47, 55, 57, 58, 115, 116, 117, and 128 are amended to recite that the options are in the alternate, not cumulative. This is intended to provide clear guidance for claim interpretation, in light of Superguide Corp. v. DirectTV Ent., 358 F.3d 870 (Fed. Cir. 2004), and is not intended to alter the claim scope from that presented during prosecution.

Claim 35 is also amended to provide clear antecedent basis for the presented identifications.

Claim 39 is amended to replace "produces" with "uses", to correct a technical error.

Claim 42 is amended to change "of" to "corresponding to", to clarify the meaning of the claim.

Claim 52 is amended to correct a typographical error.

Claim 58 is amended to reflect the Examiner's amendment (capitalization) and to recite that the memory is adapted for receiving a user profile.

Claim 59 is amended to reflect the Examiner's amendment (capitalization) and to clarify the nature of the content profiles.

Claim 115 is amended to add the word "characterizing", which was unintentionally omitted in the prior amendment, and to correct "user profile" to "user-specific profile".

Claim 116 is amended to correct a typographical error.

Claims 118 and 119 are amended to reflect the Examiner's amendment.

Claims 120 and 121, cancelled by Examiner's amendment, are replaced with new claims 173-174, which recite specific structure for the "means for automatically generating" and "means for automatically updating", respectively, i.e., a processor executing a program.

Claim 128 is amended to recite that the processor is configured to receive a stored user profile as an input, derived at least in part from a history of user interaction with the apparatus. The language "producing an output representing the user profile for storage between usage session" is simplified to "updating the user profile for storage between usage sessions".

Claim 137 is amended to define a financial accounting system.

Claims 141, 143-146, 150-154, and 156 are amended to delete the work "subsystem", thereby correcting antecedent basis issues.

Claims 145 and 146 are amended to recite that the processor performs a transform function-based processing on image data.

Claim 148 is amended to recite that a characteristic of an option comprises at least one characteristic of a serialized presentation.

Claim 149 is amended to provide proper antecedent basis.

Claim 159 is amended to correct a typographical error.

Claim 161 is amended to correct "viewer's", streamline and clarify the language of the second and fourth claim elements.

Claim 164 is amended to recite that the receiver is configured to receive video object identifying and characterizing information, and to streamline and clarify the language of the fourth claim element.

Claim 170 is amended to correct antecedent basis.

It is respectfully submitted that these amendments do not raise new issues of patentability in the claims, and place the patent in better form for issuance.

Respectfully submitted,

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